



DHEC's Office of Solid Waste Reduction and Recycling

For Your Information...

Recycling 101

What is recycling?

You already know the answer to that one. You collect your plastic bottles, aluminum cans, newspapers and other recyclables, drop them in the recycling bin and take the bin to the curb for pickup or to the drop-off site. That is recycling – but only part of it.

Recycling is the collection, separation, processing and marketing of materials so they can be used again. Composting is also recycling – nature's way of recycling. Recycling is also buying recycled. You are not really recycling if you are not buying recycled.

Why recycle?

Why not? Recycling saves natural resources and energy. Recycling one ton of materials in a typical curbside program saves at least \$265 in electricity, petroleum, natural gas and coal even after accounting for the energy used to collect and transport the materials. The energy saved from recycling one aluminum can will operate a computer for three hours. And the energy saved from recycling one glass bottle will operate a 100-watt light bulb for four hours.

Recycling turns materials that would otherwise become waste into valuable resources. Recycled plastic soft drink bottles can be made into T-shirts, carpeting and filling for ski jackets. A recycled aluminum can be made into a new aluminum can and be back on the shelf within six weeks. Recycled glass can be made into new glass. Recycled paper can be made into new paper.

Recycling reduces the need to build landfills or incinerators and as such helps protect the environment. Recycling may save money. There is always an environmental and economic cost to any type of solid waste management, but recycling may

be the least expensive approach with all things considered.

Recycling generates significant economic benefits and stimulates the development of green technology. The Office of the Federal Environmental Executive estimates the recycling and remanufacturing industry that accounts for about 1 million manufacturing jobs and more than \$1 billion in revenue. In South Carolina, 91 recycling companies created 1,083 jobs and invested \$241 million in new buildings and equipment last year, according to the Recycling Market Development Advisory Council at the S.C. Department of Commerce.



Recycling works. Recycling is one of the best environmental success stories of the late 20th century. Over the past six years, Americans have increased recycling by nearly 70 percent, according to the 2000 America Recycles Day Planning Guide. In 1998, the nation's recycling rate was 28 percent (including composting) with Americans diverting more than 62 million tons of materials from the landfill or incinerator, according to the U.S. Environmental Protection Agency.

How are we doing in South Carolina?

The amount of solid waste recycled in South Carolina increased for the seventh straight year in fiscal year (FY) 1999 (July 1, 1998 to June 30, 1999), according to the S.C. Solid Waste Management Annual Report. More than 4.1 million tons, or 45 percent of the total waste stream, which includes residential, commercial and industrial waste was recycled in FY 1999. That rate is a three percent increase from the previous FY. Overall, more than 14.3 million tons of materials have been recycled since FY 1993, the first year county governments began reporting to the S.C. Department of Health and Environmental Control.

The Recycling Process

You have seen the chasing arrows. OK, just what does that recycling symbol mean? Each arrow represents one step in the three-step process that completes the recycling loop: (1) collection and processing (2) manufacturing and (3) buying recycled products.

The first step is collection and processing. Collecting recyclables varies from community to community, but nationally there are four primary methods of collection: curbside pickup, drop-off centers, buy-back centers (where consumers sell their recyclables, e.g., aluminum cans) and deposit/refund programs (e.g., a deposit or fee is placed on a soft drink container and the money is returned to the consumer when the container is returned). Regardless of the method of collection, the next part of the process is usually the same. Recyclables are sent to a materials recovery facility to be sorted and prepared for market. Recyclables are bought and sold just like any other commodity and prices for the material changes based on the market.

The second step is the manufacturing where recyclables are manufactured into new products and shipped to stores to be sold. There are thousands of products made totally or partially from recycled materials including aluminum and glass beverage containers, steel cans, plastic bottles, newspapers and paper towels.

The third step is buying recycled. Purchasing recycled products completes the loop. Government, business and consumers each play an important role in making the recycling process a success. Buying recycled content products results in manufacturers making more recycled content products and ensures the success of your local recycling program.

To learn more about recycling, including how and where to recycle or for a copy of "South Carolina Recycles: A Directory of Recycling Programs," visit DHEC's Office of Solid Waste Reduction and Recycling Web site at www.scdhec.net/recycle or call **1-800-768-7348**.

TOTAL TONNAGE OF RECYCLABLES COLLECTED BY YEAR

1993	87,557 tons
1994	435,366 tons
1995	1.1 million tons
1996	2.1 million tons
1997	2.8 million tons
1998	4.2 million tons
1999	4.1 million tons

SOURCE: 1999 S.C. Solid Waste Management Annual Report

ANNUAL RECYCLING RATES*

1993	1.4 percent
1994	7.8 percent
1995	16 percent
1996	27 percent
1997	34 percent
1998	42 percent
1999	45 percent

SOURCE: 1999 S.C. Solid Waste Management Annual Report

*The total waste stream includes residential, commercial and industrial waste. The recycling rate reflects the amount of materials recycled from the total waste stream.

DID YOU KNOW? America Recycles Day, first held in 1997, is celebrated every November 15 to show how recycling is working, the important role each of us plays in keeping it working and to remind us to buy recycled.



DHEC's Office of Solid Waste Reduction and Recycling FYIs provide general information on environmental topics. Readers are encouraged to reproduce this material. For more information about solid waste issues, please call **1-800-768-7348** or visit our Web site at www.scdhec.net/recycle. Please send written correspondence to: DHEC's Office of Solid Waste Reduction and Recycling, 2600 Bull Street, Columbia, SC 29201.